

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P1449853

Luminaire Tested: **TWC150_T2_120W_5000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449853
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: TWC150_T2_120W_5000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 120W
5000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19624 lumens
Efficiency: N/A
Efficacy: 164.5 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 0.42' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

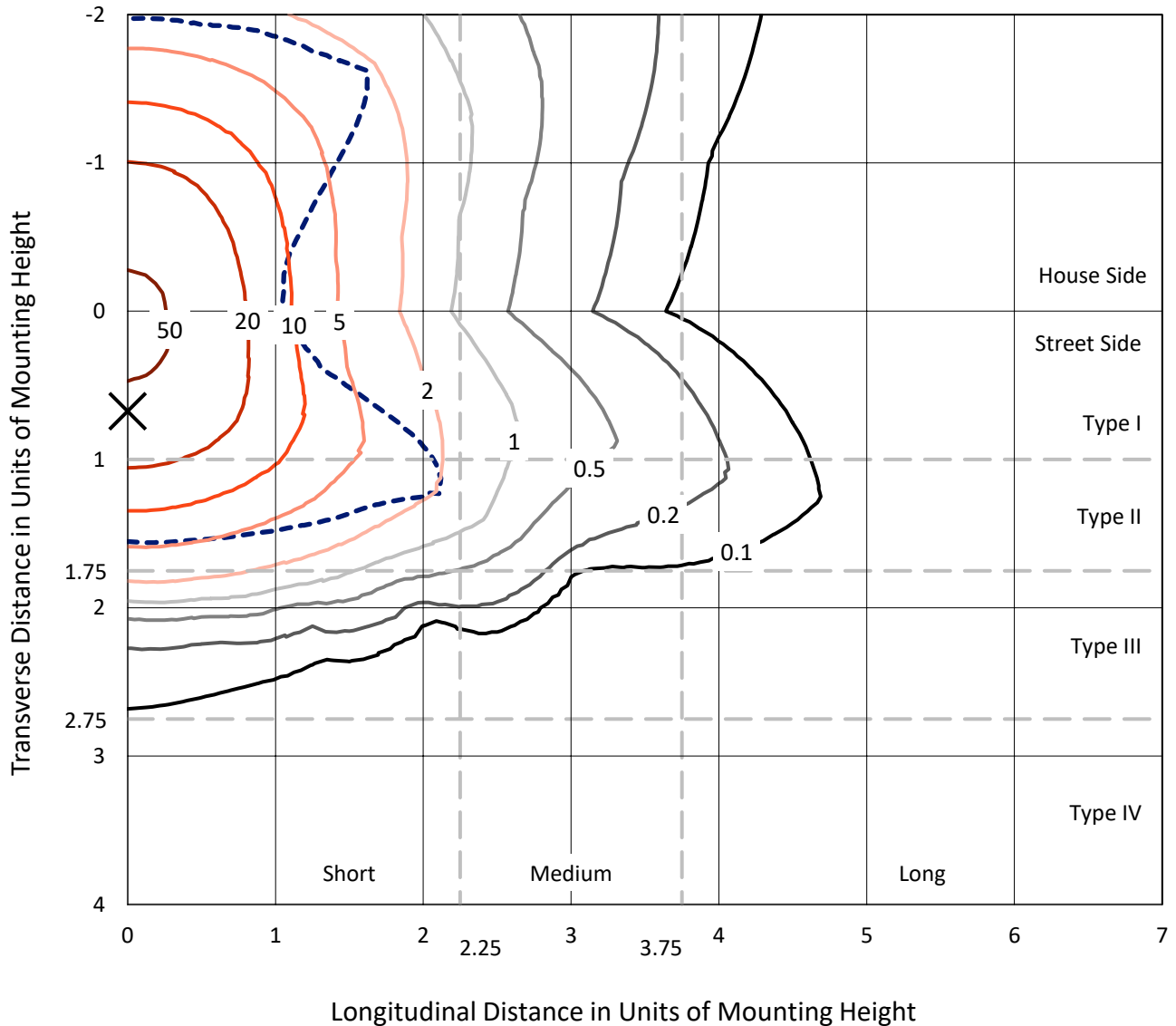
Input Watts (W): 119.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

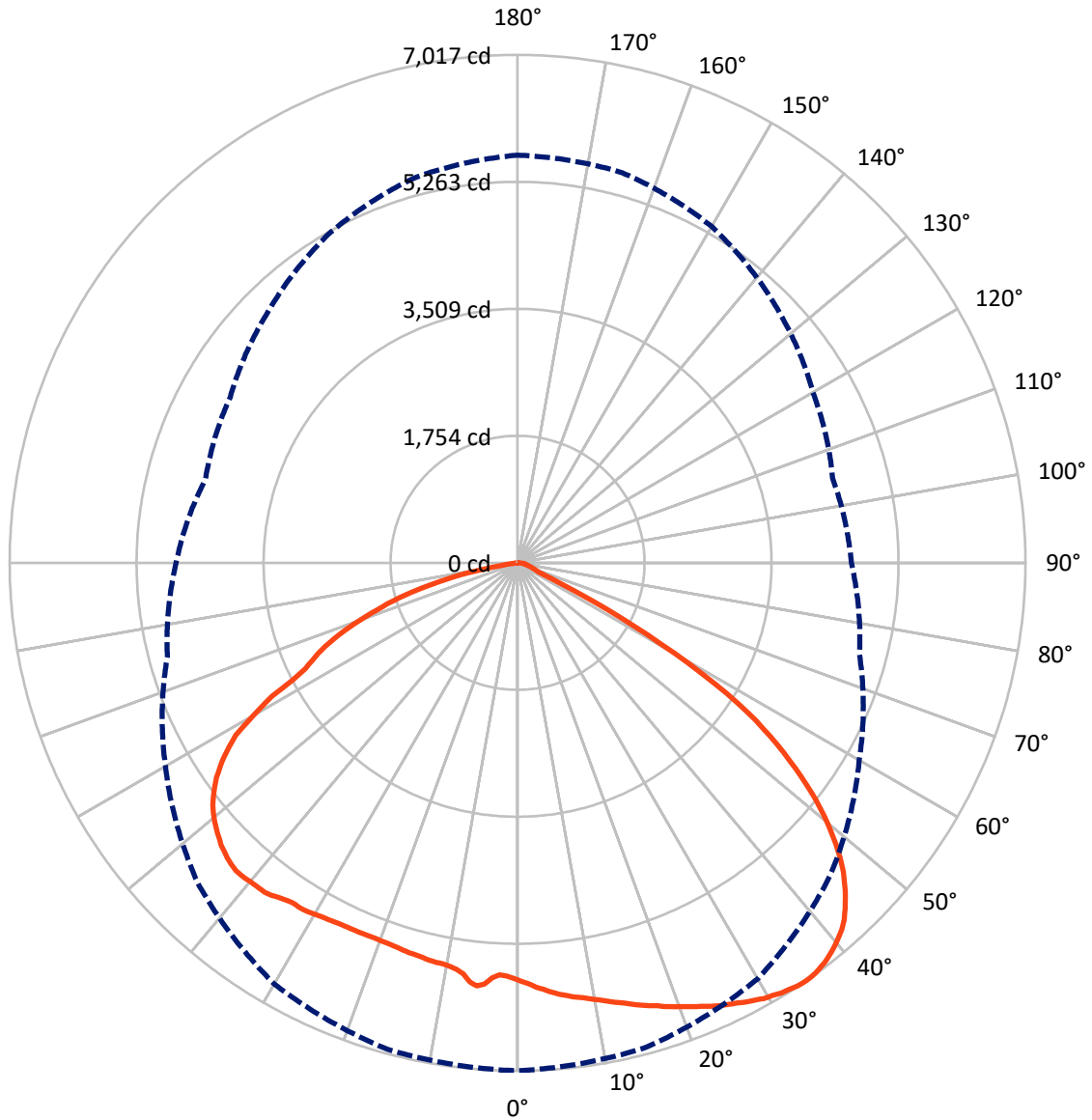
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 59.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 34-Deg Vertical

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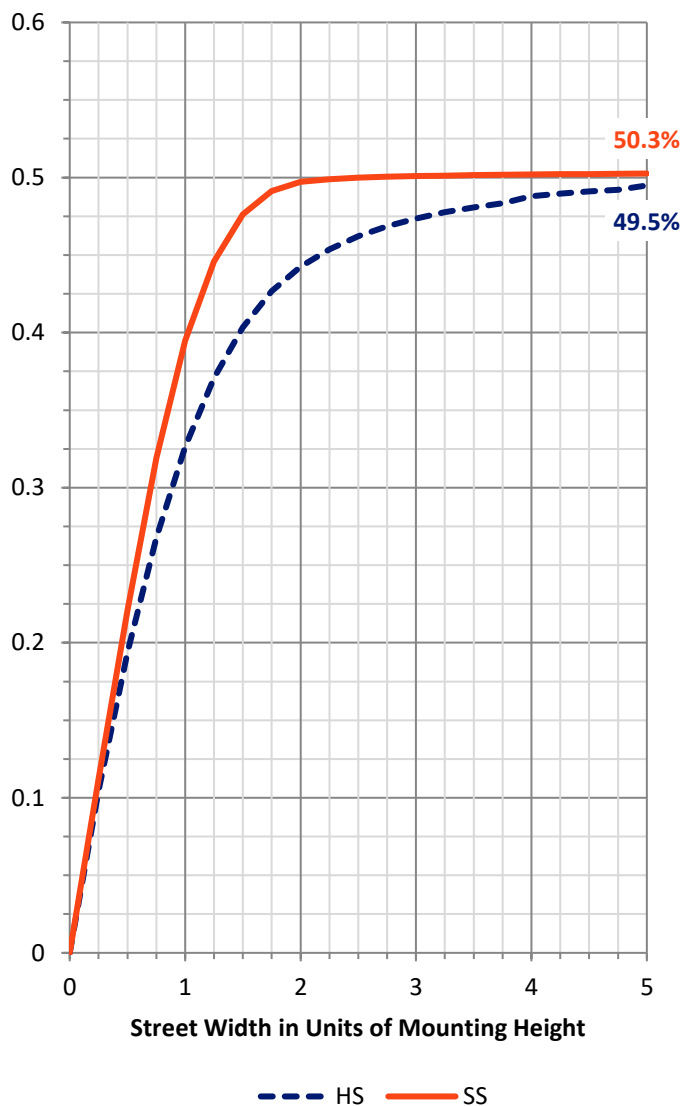
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9763.8	0.0	9763.8
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	9860.2	0.0	9860.2
	% Fixture	50.2	0.0	50.2
Total	Lumens	19624.0	0.0	19624.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	556.0	2.8
10°-20°	1638.7	8.4
20°-30°	2629.1	13.4
30°-40°	3440.6	17.5
40°-50°	3920.4	20.0
50°-60°	3733.2	19.0
60°-70°	2423.5	12.3
70°-80°	1074.2	5.5
80°-90°	208.4	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	19624.0	100.0
0°-180°	19624.0	100.0

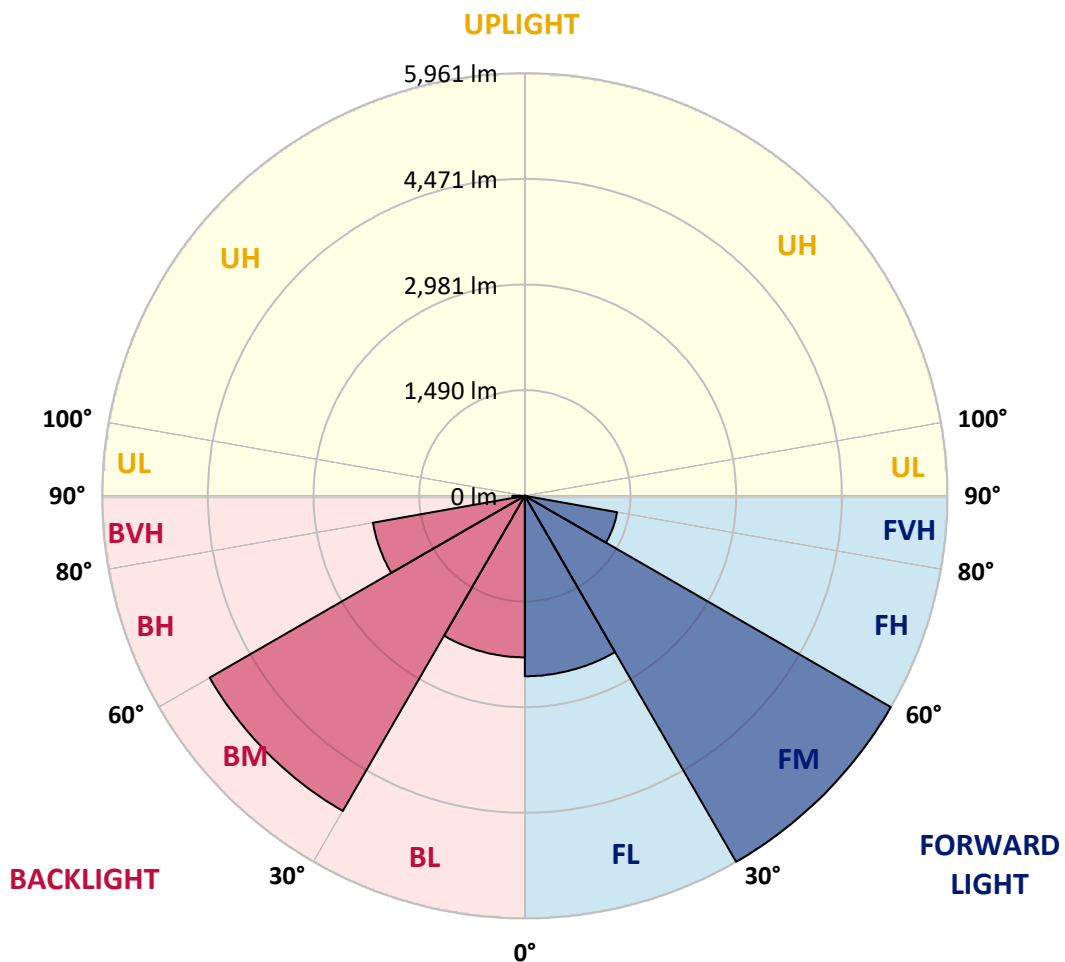


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2545.1	13.0			
FM (30°-60°)	5961.1	30.4			
FH (60°-80°)	1322.1	6.7			G1/1800
FVH (80°-90°)	32.0	0.2			G1/100
BL (0°-30°)	2278.7	11.6	B3/2500		
BM (30°-60°)	5133.1	26.2	B4/8500		
BH (60°-80°)	2175.6	11.1	B3/2500		G3/2500
BVH (80°-90°)	176.4	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4
1°	5816.2	5812.7	5814.9	5800.8	5790.1	5785.5	5780.5	5769.6	5760.0	5752.8	5747.1
2°	5865.7	5856.4	5846.1	5829.8	5809.9	5790.7	5775.2	5755.4	5739.0	5731.0	5720.7
3°	5904.8	5900.2	5881.7	5855.9	5829.3	5792.2	5768.7	5739.7	5716.6	5701.1	5693.2
4°	5949.3	5936.4	5916.1	5883.4	5838.9	5793.8	5757.1	5722.9	5696.5	5694.5	5717.2
5°	5986.1	5973.9	5946.0	5907.2	5851.1	5796.0	5750.4	5705.9	5681.4	5722.2	5792.0
6°	6018.0	6002.9	5974.8	5927.7	5862.9	5789.4	5725.9	5678.2	5687.1	5790.1	5855.9
7°	6049.2	6029.3	5990.7	5941.2	5867.9	5787.9	5713.9	5661.4	5720.9	5843.3	5864.4
8°	6076.0	6056.6	6016.5	5951.9	5876.0	5783.5	5696.7	5647.0	5765.6	5849.0	5789.6
9°	6109.2	6087.3	6032.2	5970.4	5874.0	5772.8	5674.7	5633.5	5807.5	5803.8	5702.6
10°	6140.8	6111.1	6059.0	5978.7	5879.1	5756.9	5653.3	5640.9	5805.5	5709.8	5662.7
11°	6177.9	6149.1	6075.8	5987.4	5871.9	5748.6	5633.0	5657.7	5780.7	5642.4	5633.7
12°	6217.1	6184.4	6100.6	6002.1	5873.2	5735.3	5600.1	5674.9	5700.2	5608.4	5612.7
13°	6251.8	6216.5	6127.3	6007.3	5871.0	5716.8	5570.6	5686.7	5622.1	5577.8	5598.1
14°	6296.7	6254.8	6155.2	6018.6	5866.8	5697.6	5542.9	5694.1	5561.3	5552.1	5588.3
15°	6341.9	6297.4	6181.6	6031.1	5855.9	5674.2	5510.9	5670.5	5516.6	5530.5	5563.0
16°	6379.2	6333.6	6217.6	6040.9	5857.0	5659.9	5479.7	5629.3	5482.3	5507.0	5547.1
17°	6417.3	6372.4	6242.0	6060.1	5854.4	5640.0	5449.6	5564.5	5442.0	5482.3	5533.4
18°	6464.2	6404.0	6269.0	6074.9	5850.7	5617.8	5423.4	5475.8	5411.4	5451.6	5519.6
19°	6506.5	6445.7	6299.1	6090.4	5841.3	5590.3	5395.5	5395.3	5379.6	5428.9	5497.4
20°	6545.1	6475.6	6319.8	6099.8	5841.1	5570.6	5375.0	5327.0	5340.5	5401.0	5475.1
21°	6589.2	6515.5	6351.3	6107.8	5825.6	5550.4	5363.9	5275.1	5296.1	5370.6	5463.1
22°	6633.9	6549.1	6368.5	6117.2	5810.8	5526.2	5351.7	5223.9	5251.8	5344.0	5449.6
23°	6679.9	6594.4	6390.9	6119.0	5793.8	5491.7	5338.4	5172.4	5214.5	5316.8	5427.4
24°	6724.2	6632.8	6414.9	6124.6	5779.6	5461.6	5318.3	5126.4	5172.8	5291.7	5414.5
25°	6760.6	6668.6	6440.9	6121.1	5758.0	5413.0	5292.1	5080.1	5131.6	5264.4	5408.8
26°	6795.8	6705.2	6465.1	6118.3	5729.2	5366.7	5248.1	5017.1	5081.4	5230.6	5398.3
27°	6839.6	6738.6	6498.5	6123.3	5706.5	5323.8	5194.9	4963.9	5036.5	5203.6	5385.3
28°	6873.4	6769.4	6514.8	6113.1	5674.2	5270.3	5121.8	4901.1	4992.7	5180.5	5381.8
29°	6915.3	6808.0	6539.3	6115.3	5637.8	5219.3	5045.4	4839.8	4952.3	5150.8	5379.2
30°	6937.3	6843.3	6553.2	6109.6	5606.4	5155.6	4950.4	4776.7	4905.0	5125.1	5368.7
31°	6969.1	6866.2	6580.5	6115.9	5569.3	5093.9	4861.4	4713.7	4853.5	5102.2	5367.8
32°	6988.3	6893.7	6594.7	6112.4	5528.3	5031.5	4773.5	4644.1	4809.9	5077.7	5362.1
33°	7009.5	6907.9	6617.8	6108.7	5489.3	4961.3	4686.9	4576.3	4756.7	5054.8	5365.6
34°	7017.1	6923.6	6634.8	6108.1	5450.7	4889.9	4610.3	4505.9	4711.7	5032.8	5364.1
35°	7012.8	6926.8	6652.2	6105.0	5412.5	4821.2	4527.0	4435.6	4655.5	5006.2	5358.9
36°	6990.5	6924.0	6652.0	6094.3	5372.8	4742.9	4442.6	4365.4	4606.8	4990.5	5335.1
37°	6966.5	6901.8	6662.7	6096.9	5334.2	4665.5	4356.0	4293.2	4556.9	4961.0	5332.9
38°	6925.5	6872.3	6655.1	6101.3	5302.4	4592.9	4269.6	4221.7	4510.7	4929.4	5334.7
39°	6876.2	6836.5	6637.2	6100.0	5267.9	4515.2	4180.0	4154.7	4461.1	4889.5	5346.2
40°	6822.4	6786.8	6621.5	6102.8	5236.1	4435.4	4090.1	4087.7	4412.5	4861.8	5359.1
41°	6762.6	6731.0	6588.8	6102.8	5206.2	4362.8	4000.3	4020.8	4361.3	4852.9	5354.1
42°	6679.9	6662.5	6549.9	6099.3	5176.3	4286.7	3912.2	3943.6	4303.5	4837.6	5351.9
43°	6574.2	6583.1	6496.7	6096.3	5152.1	4214.9	3813.4	3866.4	4235.4	4806.2	5351.2
44°	6461.2	6484.3	6435.9	6090.6	5128.1	4147.1	3711.9	3790.2	4187.2	4771.3	5354.7



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	6337.5	6379.0	6371.8	6074.3	5107.0	4081.6	3611.8	3707.6	4139.0	4734.9	5354.5
46°	6204.9	6255.9	6289.3	6053.8	5087.8	4019.5	3516.1	3626.7	4090.8	4723.7	5341.6
47°	6044.8	6120.7	6206.6	6021.0	5075.5	3953.6	3409.0	3545.3	4037.6	4707.2	5312.6
48°	5871.9	5968.7	6096.7	5989.0	5056.8	3879.2	3307.6	3456.8	3974.5	4683.4	5278.6
49°	5686.7	5796.0	5977.0	5933.6	5043.7	3800.9	3200.3	3360.6	3912.4	4653.3	5240.2
50°	5484.9	5599.7	5845.7	5876.0	5034.8	3716.1	3095.8	3255.9	3863.8	4620.1	5195.7
51°	5264.0	5404.5	5696.7	5814.1	5023.9	3629.1	2988.5	3154.5	3811.2	4578.0	5147.5
52°	5030.6	5179.8	5532.5	5744.9	5018.8	3537.9	2877.5	3067.9	3746.8	4540.8	5101.7
53°	4778.3	4946.0	5343.8	5654.6	5006.4	3431.5	2771.5	2985.9	3677.3	4506.1	5049.2
54°	4517.2	4693.9	5130.1	5549.7	4991.1	3339.6	2666.6	2885.3	3604.9	4464.9	4992.4
55°	4240.2	4426.0	4903.0	5425.4	4979.6	3245.4	2552.5	2782.4	3525.2	4418.2	4930.7
56°	3943.1	4142.9	4659.4	5291.5	4959.5	3153.6	2440.6	2687.5	3459.2	4364.1	4863.3
57°	3607.0	3836.1	4390.9	5137.3	4929.4	3065.0	2329.8	2593.5	3383.0	4308.7	4789.2
58°	3203.3	3501.3	4107.4	4950.1	4881.7	2976.9	2214.6	2495.4	3310.6	4252.2	4703.9
59°	2749.2	3104.3	3802.2	4741.2	4828.2	2889.9	2100.1	2389.1	3231.9	4195.3	4603.1
60°	2279.0	2647.4	3470.9	4498.4	4756.9	2802.9	1981.3	2280.5	3151.2	4138.1	4491.0
61°	1836.1	2176.2	3105.8	4226.7	4680.1	2722.2	1868.0	2171.8	3069.0	4080.8	4355.8
62°	1393.6	1734.6	2667.2	3906.5	4584.4	2652.2	1762.1	2069.8	2991.8	4002.5	4152.7
63°	951.0	1293.2	2210.3	3562.5	4471.8	2589.6	1648.0	1961.1	2919.4	3917.2	3949.9
64°	616.6	851.8	1754.3	3204.6	4337.0	2538.3	1535.8	1860.0	2842.6	3820.3	3742.7
65°	405.2	532.0	1298.4	2785.4	4180.4	2503.2	1428.5	1760.1	2763.8	3721.3	3391.1
66°	311.9	350.4	842.4	2319.3	3992.9	2486.8	1322.4	1660.6	2679.2	3588.5	3135.7
67°	283.0	275.0	514.9	1840.7	3762.1	2477.9	1221.1	1560.9	2596.1	3375.0	2985.9
68°	263.0	250.0	326.0	1361.8	3476.8	2473.3	1118.9	1464.7	2498.2	3110.4	2860.7
69°	243.5	230.2	255.1	883.0	3156.7	2465.5	1020.6	1370.8	2401.6	2905.2	2737.5
70°	224.3	211.4	229.6	514.4	2749.0	2463.7	924.9	1280.8	2309.1	2776.1	2619.0
71°	206.4	195.4	210.8	303.7	2211.2	2476.6	832.3	1189.9	2204.6	2650.9	2510.0
72°	192.0	179.5	192.1	220.2	1637.0	2479.0	748.6	1100.7	2037.8	2513.5	2395.2
73°	177.7	163.6	173.3	195.4	1062.2	2420.8	665.5	1008.9	1881.0	2371.0	2273.8
74°	163.5	149.5	154.6	171.6	487.4	2251.9	586.0	919.8	1777.3	2236.7	2137.4
75°	148.8	134.4	136.9	147.9	270.4	2036.0	511.2	836.2	1690.3	2109.7	1994.6
76°	136.4	120.7	116.8	131.7	227.9	1804.0	436.4	753.1	1594.7	1986.0	1822.7
77°	127.1	110.0	101.5	119.2	187.9	1571.7	361.9	674.6	1499.8	1870.8	1624.6
78°	121.1	101.1	88.9	104.8	147.9	1339.4	299.6	580.0	1412.2	1759.8	1445.4
79°	116.2	95.5	79.8	87.0	134.1	1021.8	243.5	505.8	1319.0	1653.3	1279.6
80°	109.7	90.7	72.7	70.9	134.0	772.2	193.1	431.6	1227.7	1515.3	1150.9
81°	102.4	84.8	67.1	60.1	124.5	539.9	151.0	357.5	1140.6	1370.8	1018.7
82°	93.6	78.1	62.0	52.5	106.6	351.3	114.7	300.2	1046.2	1223.4	726.1
83°	77.3	67.8	56.6	45.8	88.3	207.0	83.0	246.0	952.4	1111.0	433.5
84°	61.1	55.5	47.9	39.8	60.7	154.6	63.5	193.0	823.1	1009.1	146.3
85°	43.9	41.2	36.0	33.9	35.7	102.6	44.0	145.8	662.8	806.3	84.2
86°	30.6	31.1	26.2	25.2	23.0	50.5	24.6	101.7	530.4	603.4	23.1
87°	20.9	21.3	17.9	17.3	15.5	27.7	14.1	68.9	398.0	400.6	11.3
88°	11.2	11.4	9.7	9.5	8.2	18.5	6.4	36.0	265.6	197.7	3.9
89°	1.5	1.6	1.5	1.6	1.7	9.6	2.1	4.0	133.2	1.4	0.9



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 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853
 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853
CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853

CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4	5779.4
1°	5741.6	5741.2	5745.8	5741.9	5750.6	5757.1	5764.5	5781.3	5790.5	5796.4	5804.0
2°	5707.4	5710.5	5708.5	5712.4	5732.3	5742.1	5756.3	5776.3	5800.3	5813.6	5832.6
3°	5690.8	5697.6	5688.2	5689.5	5697.8	5722.9	5738.6	5768.3	5798.8	5829.8	5865.1
4°	5744.7	5743.4	5725.3	5695.4	5677.1	5697.6	5723.5	5764.5	5811.2	5847.2	5890.4
5°	5831.1	5835.4	5808.4	5760.0	5687.1	5673.6	5707.4	5752.3	5808.4	5866.2	5915.9
6°	5872.1	5873.2	5871.6	5821.9	5734.2	5659.6	5687.1	5738.6	5807.5	5879.5	5935.1
7°	5838.9	5827.8	5844.8	5850.9	5791.6	5665.1	5666.2	5728.1	5808.4	5889.1	5955.8
8°	5736.6	5725.7	5745.1	5813.0	5825.6	5687.3	5642.6	5714.6	5809.7	5896.3	5969.8
9°	5680.6	5680.6	5681.2	5713.5	5816.0	5728.1	5614.1	5691.7	5796.8	5898.7	5984.6
10°	5655.7	5654.0	5652.4	5651.3	5745.8	5756.0	5596.4	5674.5	5792.2	5904.6	6001.0
11°	5634.6	5636.7	5630.8	5621.9	5662.9	5760.6	5580.0	5653.7	5775.9	5901.7	6008.0
12°	5630.4	5631.7	5616.2	5591.4	5603.6	5735.3	5570.6	5623.2	5768.3	5901.5	6023.7
13°	5617.8	5623.4	5609.3	5574.1	5569.1	5672.7	5576.8	5595.1	5754.1	5900.9	6038.5
14°	5604.0	5608.8	5585.9	5560.2	5533.4	5591.6	5590.9	5572.2	5742.1	5901.5	6052.9
15°	5590.3	5594.6	5572.6	5541.4	5500.9	5521.4	5589.6	5548.0	5724.0	5907.2	6073.6
16°	5580.5	5590.1	5565.2	5514.4	5477.3	5467.5	5594.2	5508.5	5707.4	5911.8	6090.0
17°	5571.1	5579.2	5552.8	5497.8	5444.1	5429.1	5571.7	5478.8	5688.2	5909.6	6110.7
18°	5555.6	5563.9	5532.7	5474.9	5410.8	5384.4	5532.7	5442.0	5678.6	5909.6	6132.3
19°	5539.9	5558.2	5522.9	5459.0	5374.6	5343.6	5478.0	5413.2	5660.7	5906.1	6151.2
20°	5536.8	5553.9	5507.8	5432.4	5351.7	5304.1	5404.5	5370.6	5641.3	5903.9	6156.0
21°	5532.0	5548.0	5499.8	5409.5	5321.8	5265.3	5321.8	5336.8	5626.9	5904.6	6170.9
22°	5526.2	5546.7	5494.1	5390.9	5286.0	5217.5	5239.8	5300.2	5600.1	5892.4	6180.7
23°	5526.8	5552.3	5488.2	5376.5	5250.9	5160.0	5170.2	5269.2	5573.7	5884.3	6193.1
24°	5521.8	5552.3	5486.0	5350.4	5216.2	5112.0	5108.7	5237.2	5537.3	5867.5	6203.4
25°	5519.0	5554.5	5483.8	5339.7	5187.4	5070.3	5048.1	5218.8	5498.2	5849.6	6207.7
26°	5526.2	5558.2	5475.8	5322.7	5154.7	5016.9	4990.1	5201.4	5461.6	5829.8	6214.9
27°	5524.0	5562.1	5478.0	5312.2	5122.0	4961.7	4928.5	5176.1	5412.7	5815.6	6220.2
28°	5528.6	5573.0	5478.0	5295.0	5085.6	4905.4	4874.9	5151.0	5362.6	5784.2	6223.9
29°	5540.8	5583.7	5480.4	5275.8	5055.5	4859.2	4815.3	5115.7	5310.0	5761.9	6231.7
30°	5543.2	5595.7	5489.1	5263.6	5021.5	4802.3	4746.9	5059.0	5251.8	5730.5	6243.3
31°	5566.3	5614.7	5492.3	5259.0	4989.4	4752.3	4674.7	4995.1	5190.3	5704.6	6248.7
32°	5575.0	5630.4	5507.8	5244.6	4953.6	4694.3	4608.8	4915.7	5134.7	5680.8	6244.4
33°	5580.0	5634.6	5510.0	5240.9	4912.0	4638.9	4531.4	4819.5	5071.4	5647.0	6256.8
34°	5579.4	5631.1	5506.3	5235.0	4885.6	4582.8	4464.2	4716.8	5008.6	5618.2	6250.9
35°	5580.5	5651.6	5500.6	5225.6	4846.3	4529.6	4390.7	4612.3	4942.9	5588.8	6259.6
36°	5602.7	5678.8	5505.2	5207.1	4814.3	4472.5	4313.7	4506.1	4877.7	5571.5	6264.0
37°	5631.3	5713.7	5527.9	5181.8	4782.6	4415.3	4233.9	4415.3	4812.7	5539.2	6273.2
38°	5651.8	5735.5	5551.5	5176.1	4748.8	4355.1	4159.7	4319.2	4750.8	5523.5	6273.4
39°	5660.9	5739.0	5566.9	5172.4	4706.5	4291.9	4085.6	4228.0	4686.0	5500.0	6275.6
40°	5665.5	5744.5	5563.9	5163.7	4659.2	4234.1	4011.4	4132.2	4616.4	5478.4	6270.6
41°	5673.6	5753.6	5561.9	5155.2	4622.3	4178.0	3920.0	4043.5	4548.2	5453.7	6277.1
42°	5681.4	5764.5	5580.2	5141.9	4589.8	4122.0	3831.0	3950.8	4480.3	5440.9	6263.4
43°	5690.0	5763.2	5583.7	5141.2	4565.0	4065.7	3737.7	3852.6	4415.3	5433.0	6252.4
44°	5677.7	5744.0	5582.9	5141.0	4537.7	3992.4	3647.8	3754.5	4342.7	5429.1	6227.4



REPORT NUMBER: P1449853

CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	5654.6	5719.2	5564.1	5135.3	4489.1	3913.3	3557.5	3655.2	4270.3	5424.1	6196.4
46°	5620.2	5683.2	5532.3	5126.8	4446.7	3835.4	3467.7	3555.6	4204.4	5414.7	6155.0
47°	5584.8	5650.3	5494.1	5108.7	4408.8	3760.6	3378.7	3450.2	4134.2	5404.7	6103.7
48°	5545.6	5601.0	5456.8	5084.7	4375.2	3701.9	3287.3	3350.1	4070.3	5399.4	6040.2
49°	5498.9	5554.7	5410.6	5052.2	4334.0	3630.4	3194.8	3240.4	4003.6	5391.4	5979.4
50°	5448.9	5502.6	5368.7	5015.4	4289.5	3556.4	3099.3	3131.8	3934.4	5379.8	5904.8
51°	5393.3	5442.8	5319.2	4963.4	4238.5	3484.5	3002.2	3027.5	3871.8	5366.7	5819.1
52°	5338.6	5380.2	5262.0	4919.8	4191.8	3414.2	2896.2	2919.6	3806.8	5351.7	5707.6
53°	5264.4	5293.9	5199.7	4866.4	4155.1	3351.0	2788.5	2812.3	3747.9	5325.7	5589.6
54°	5185.3	5205.8	5134.7	4814.5	4118.7	3276.0	2680.7	2700.2	3696.7	5287.3	5448.5
55°	5094.7	5106.3	5048.5	4755.8	4082.3	3196.6	2584.6	2586.5	3648.0	5242.0	5292.8
56°	4991.4	4989.4	4955.4	4698.2	4033.4	3104.7	2482.5	2471.4	3610.3	5173.3	5119.4
57°	4873.1	4865.7	4846.1	4626.9	3979.8	3016.4	2374.1	2355.8	3585.0	5106.7	4911.5
58°	4741.0	4717.9	4724.0	4560.8	3929.4	2924.1	2265.7	2240.2	3553.8	5025.2	4689.1
59°	4599.0	4565.2	4592.2	4479.2	3881.4	2838.0	2160.9	2127.0	3528.5	4929.2	4429.1
60°	4443.0	4329.2	4447.2	4394.6	3817.5	2750.1	2057.2	2016.6	3496.9	4821.5	4145.8
61°	4161.0	4093.2	4199.6	4289.9	3751.2	2665.7	1954.1	1906.7	3466.4	4689.3	3835.8
62°	3879.2	3856.6	3952.3	4153.0	3681.2	2575.6	1847.0	1796.8	3453.5	4542.9	3495.8
63°	3597.4	3489.3	3704.1	4016.0	3594.6	2480.5	1735.3	1683.6	3439.5	4358.0	3125.7
64°	3310.4	3273.1	3365.2	3876.2	3510.4	2393.5	1624.3	1569.9	3433.0	4151.0	2716.7
65°	3156.9	3147.5	3163.8	3605.5	3413.4	2303.0	1513.7	1464.0	3418.2	3903.7	2254.6
66°	3041.1	3030.1	3030.1	3278.1	3314.8	2208.8	1406.8	1359.6	3409.4	3612.3	1788.1
67°	2925.0	2899.3	2922.0	3048.5	3200.7	2114.8	1302.4	1255.2	3403.1	3281.6	1321.6
68°	2790.2	2747.5	2807.5	2897.8	3058.9	2018.4	1199.3	1143.9	3364.9	2874.2	855.1
69°	2643.7	2578.0	2675.1	2752.3	2844.5	1918.1	1098.8	1036.2	3281.6	2400.7	514.1
70°	2490.6	2409.6	2542.9	2615.7	2650.0	1822.4	1001.9	932.2	3136.4	1853.3	313.8
71°	2317.2	2219.0	2389.4	2489.2	2532.6	1725.5	912.7	829.1	2925.2	1303.7	233.6
72°	2140.9	2046.1	2229.0	2382.6	2433.4	1631.8	829.6	733.8	2727.6	754.2	208.1
73°	1972.5	1884.6	2056.9	2282.7	2316.1	1530.1	743.9	642.7	2566.9	412.3	188.0
74°	1795.1	1704.7	1879.4	2180.3	2201.6	1382.9	665.8	561.8	2310.0	244.7	168.1
75°	1620.4	1521.6	1700.3	2073.7	2085.5	1262.3	590.7	482.5	2013.7	208.8	148.2
76°	1432.8	1315.1	1527.5	1955.6	1970.0	1173.5	525.4	410.6	1601.4	175.2	126.9
77°	1242.1	1117.9	1348.5	1806.6	1850.5	1088.1	460.2	351.0	1185.1	141.6	108.9
78°	1068.2	928.5	1187.3	1625.5	1722.3	998.7	395.1	301.0	768.7	129.4	91.9
79°	880.3	698.8	1019.5	1431.3	1598.4	915.1	340.4	258.7	429.6	123.4	76.7
80°	635.8	469.1	838.5	1253.8	1467.0	836.5	279.4	215.4	232.2	112.8	65.3
81°	391.3	241.1	551.8	1128.9	1324.0	755.9	226.8	175.6	188.6	92.0	57.8
82°	152.0	78.9	266.5	1030.1	1190.1	676.2	184.6	135.8	147.1	72.9	51.5
83°	111.2	62.2	187.9	723.4	1040.9	593.9	144.7	95.9	105.6	52.8	45.9
84°	70.4	45.6	109.4	416.7	926.6	503.7	110.5	68.8	102.1	36.9	40.5
85°	30.0	28.9	31.5	110.4	818.5	413.4	80.5	47.8	88.7	28.7	33.5
86°	18.3	17.2	19.9	61.2	512.1	323.5	58.3	30.9	65.6	22.6	23.1
87°	8.8	8.5	9.2	12.1	209.4	241.2	36.0	21.0	38.9	15.1	14.3
88°	3.3	3.2	3.4	3.5	103.7	160.5	13.8	11.2	25.9	7.5	5.5
89°	0.7	0.7	0.7	0.9	1.4	79.8	2.0	1.4	13.3	1.5	1.6



REPORT NUMBER: P1449853
 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853
 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853
CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449853
 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	5779.4	5779.4	5779.4
1°	5813.2	5817.3	5816.2
2°	5849.6	5855.3	5865.7
3°	5881.0	5897.6	5904.8
4°	5920.5	5937.1	5949.3
5°	5950.8	5972.8	5986.1
6°	5977.4	6006.2	6018.0
7°	6003.2	6042.2	6049.2
8°	6029.1	6070.3	6076.0
9°	6051.4	6093.9	6109.2
10°	6071.9	6120.1	6140.8
11°	6096.5	6156.3	6177.9
12°	6122.9	6197.7	6217.1
13°	6156.5	6233.3	6251.8
14°	6185.9	6278.4	6296.7
15°	6220.2	6312.2	6341.9
16°	6252.0	6353.0	6379.2
17°	6278.6	6383.5	6417.3
18°	6308.1	6427.6	6464.2
19°	6338.2	6466.6	6506.5
20°	6369.4	6503.7	6545.1
21°	6401.9	6539.3	6589.2
22°	6426.9	6587.2	6633.9
23°	6450.5	6627.6	6679.9
24°	6486.7	6667.5	6724.2
25°	6511.6	6713.7	6760.6
26°	6543.8	6746.5	6795.8
27°	6573.5	6775.0	6839.6
28°	6598.8	6815.8	6873.4
29°	6614.9	6854.4	6915.3
30°	6649.6	6884.5	6937.3
31°	6672.1	6910.3	6969.1
32°	6693.2	6932.7	6988.3
33°	6713.5	6948.0	7009.5
34°	6719.0	6955.8	7017.1
35°	6738.0	6957.4	7012.8
36°	6745.2	6948.0	6990.5
37°	6735.3	6927.7	6966.5
38°	6729.9	6898.7	6925.5
39°	6709.2	6849.6	6876.2
40°	6677.5	6796.0	6822.4
41°	6631.7	6741.0	6762.6
42°	6583.8	6662.9	6679.9
43°	6523.1	6582.9	6574.2
44°	6454.9	6479.7	6461.2



REPORT NUMBER: P1449853
 CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	6377.0	6357.1	6337.5
46°	6284.9	6227.1	6204.9
47°	6170.0	6086.7	6044.8
48°	6051.4	5922.2	5871.9
49°	5909.1	5735.3	5686.7
50°	5754.1	5542.9	5484.9
51°	5582.2	5339.5	5264.0
52°	5392.2	5110.7	5030.6
53°	5195.3	4863.5	4778.3
54°	4965.6	4609.7	4517.2
55°	4720.5	4338.6	4240.2
56°	4457.2	4041.5	3943.1
57°	4177.0	3729.8	3607.0
58°	3872.9	3365.6	3203.3
59°	3554.7	2937.0	2749.2
60°	3187.8	2473.1	2279.0
61°	2773.0	1985.7	1836.1
62°	2301.9	1541.1	1393.6
63°	1847.5	1097.0	951.0
64°	1393.2	728.0	616.6
65°	939.0	458.2	405.2
66°	592.2	323.6	311.9
67°	366.7	275.1	283.0
68°	269.6	253.5	263.0
69°	238.1	234.6	243.5
70°	217.8	216.0	224.3
71°	200.5	199.8	206.4
72°	182.5	183.8	192.0
73°	164.5	167.7	177.7
74°	150.4	153.8	163.5
75°	133.9	139.0	148.8
76°	115.9	125.7	136.4
77°	100.8	115.5	127.1
78°	90.1	107.9	121.1
79°	81.9	102.4	116.2
80°	75.6	97.3	109.7
81°	70.5	90.8	102.4
82°	64.8	83.3	93.6
83°	58.3	71.2	77.3
84°	46.9	57.8	61.1
85°	36.9	42.8	43.9
86°	24.0	30.9	30.6
87°	16.5	21.0	20.9
88°	9.0	11.2	11.2
89°	1.6	1.4	1.5



REPORT NUMBER: P1449853
CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0



REPORT NUMBER: P1449853
CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
135°	0.0	0.0	0.0
136°	0.0	0.0	0.0
137°	0.0	0.0	0.0
138°	0.0	0.0	0.0
139°	0.0	0.0	0.0
140°	0.0	0.0	0.0
141°	0.0	0.0	0.0
142°	0.0	0.0	0.0
143°	0.0	0.0	0.0
144°	0.0	0.0	0.0
145°	0.0	0.0	0.0
146°	0.0	0.0	0.0
147°	0.0	0.0	0.0
148°	0.0	0.0	0.0
149°	0.0	0.0	0.0
150°	0.0	0.0	0.0
151°	0.0	0.0	0.0
152°	0.0	0.0	0.0
153°	0.0	0.0	0.0
154°	0.0	0.0	0.0
155°	0.0	0.0	0.0
156°	0.0	0.0	0.0
157°	0.0	0.0	0.0
158°	0.0	0.0	0.0
159°	0.0	0.0	0.0
160°	0.0	0.0	0.0
161°	0.0	0.0	0.0
162°	0.0	0.0	0.0
163°	0.0	0.0	0.0
164°	0.0	0.0	0.0
165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
168°	0.0	0.0	0.0
169°	0.0	0.0	0.0
170°	0.0	0.0	0.0
171°	0.0	0.0	0.0
172°	0.0	0.0	0.0
173°	0.0	0.0	0.0
174°	0.0	0.0	0.0
175°	0.0	0.0	0.0
176°	0.0	0.0	0.0
177°	0.0	0.0	0.0
178°	0.0	0.0	0.0
179°	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



REPORT NUMBER: P1449853
CATALOG NUMBER: TWC150_T2_120W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2601-659-3

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-5000K

Data in this report applies to families of products including ;MWP2460W34VDDKYYAD

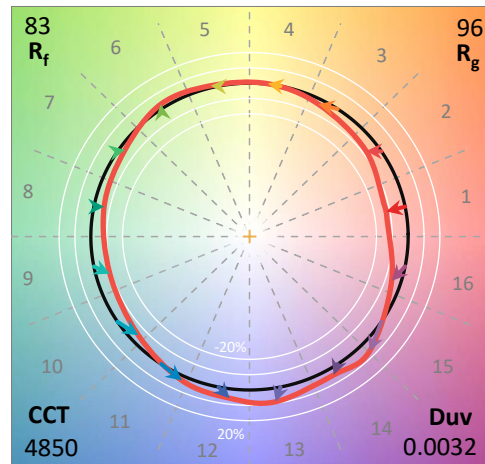
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-5000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 5000K

Spectral Parameters

CCT (K): 4850
 CIE u': 0.2108
 CIE v': 0.4905
 Duv: 0.0032
 CIE x: 0.3503
 CIE y: 0.3623
 CIE z: 0.2875
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 13.81051
 R_f: 83.1
 R_g: 95.8

CRI (Ra):	82.6		
R1:	80.9	R9:	8.5
R2:	87.6	R10:	69.7
R3:	92.0	R11:	80.6
R4:	81.9	R12:	52.2
R5:	80.4	R13:	82.7
R6:	82.0	R14:	95.7
R7:	88.2	R15:	74.9
R8:	67.7		



Test Conditions

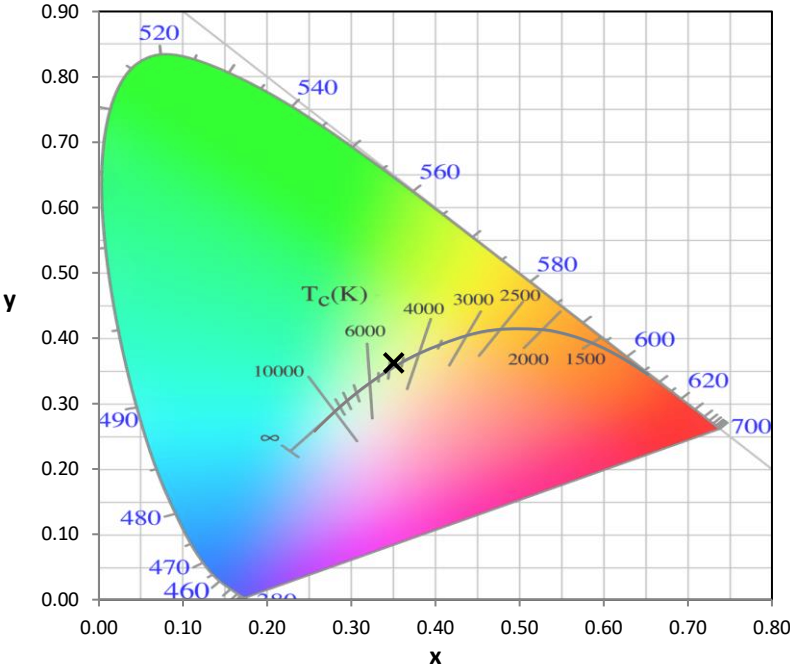
Stabilization Time: 25M
 Operation Time: 1H 25M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

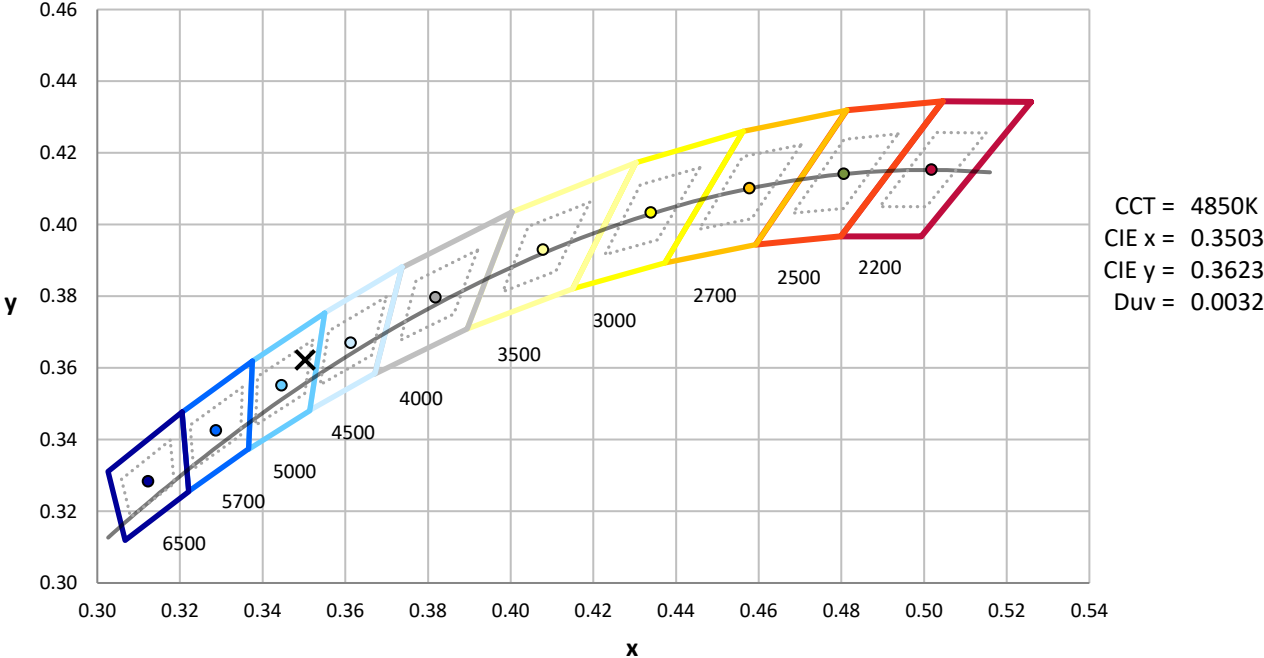
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2601-659-3

CIE 1931 Chromaticity Diagram



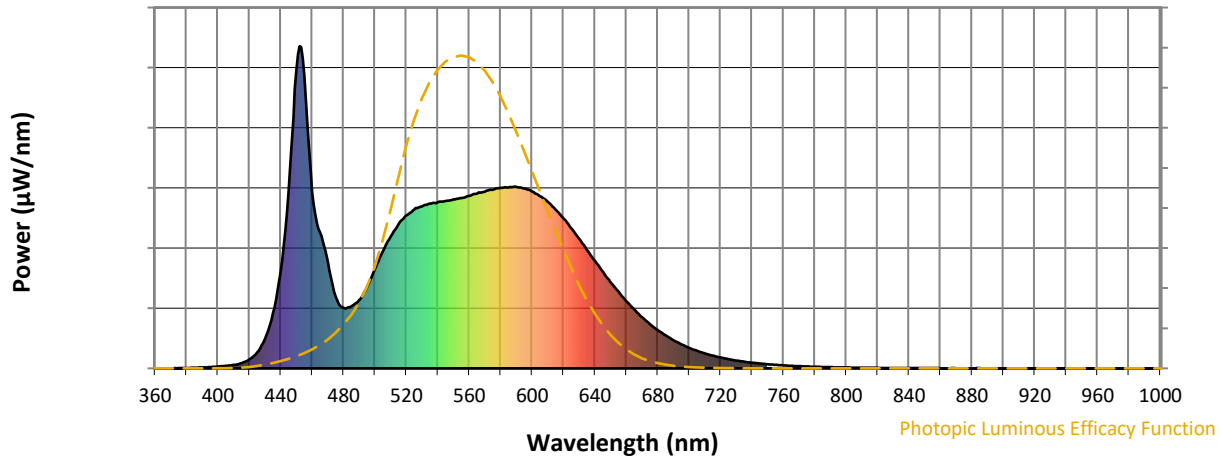
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

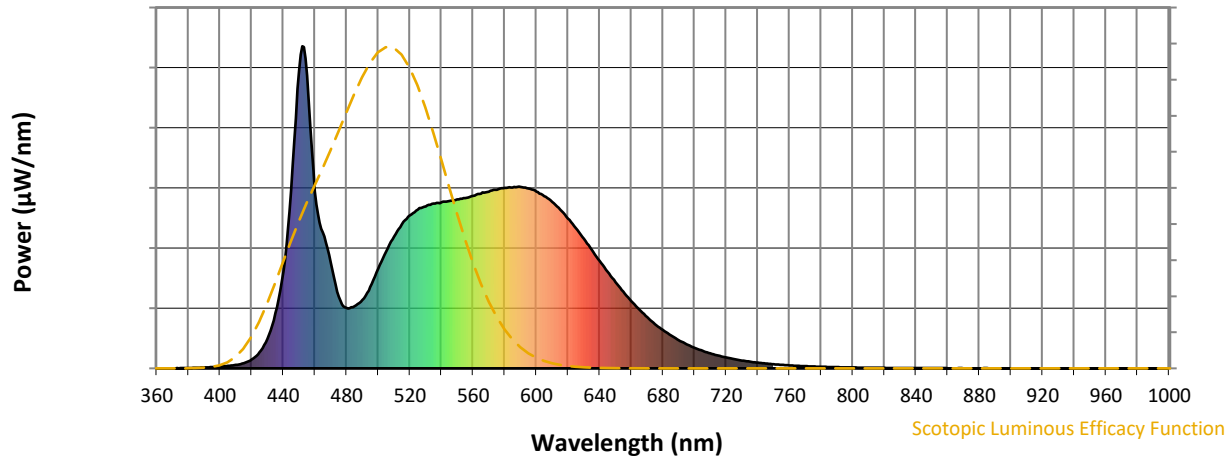


Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Scotopic Flux vs. Wavelength



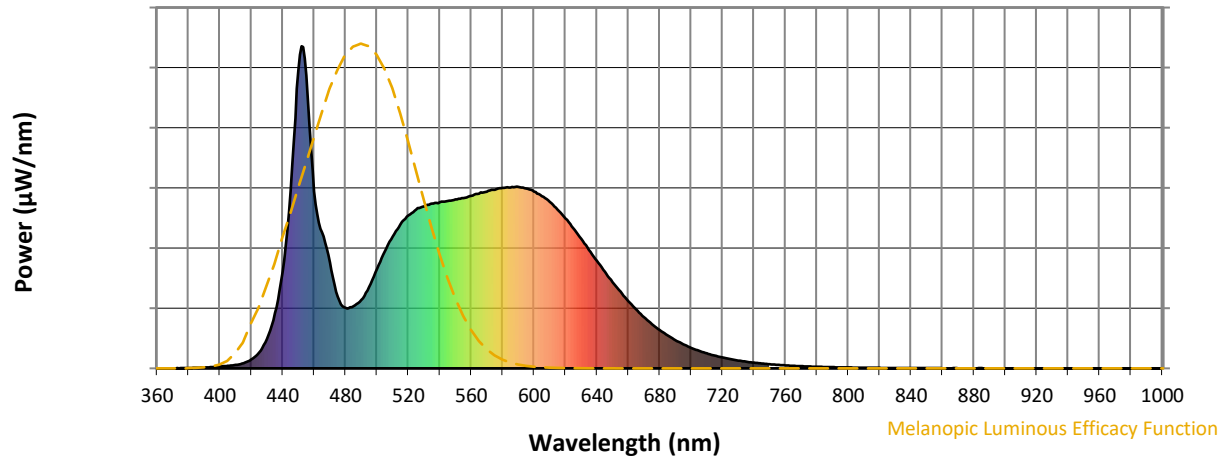
Scotopic Lumens: NR

S/P: 1.9

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Melanopic Flux vs. Wavelength



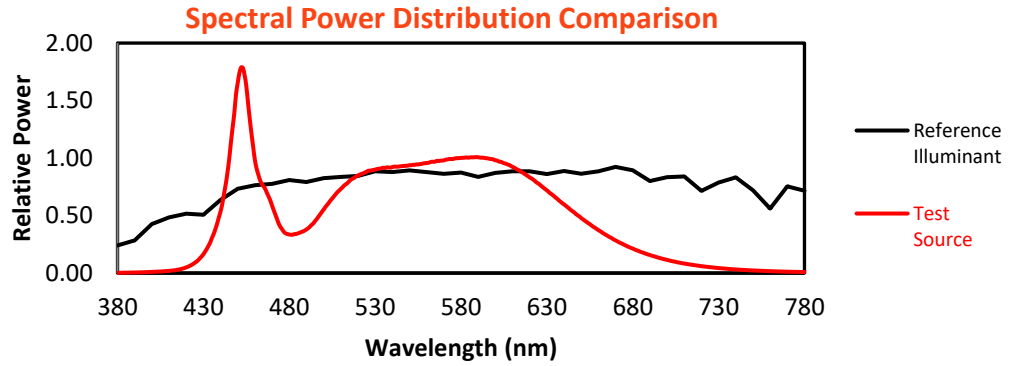
Melanopic Lumens: NR

M/P: 4

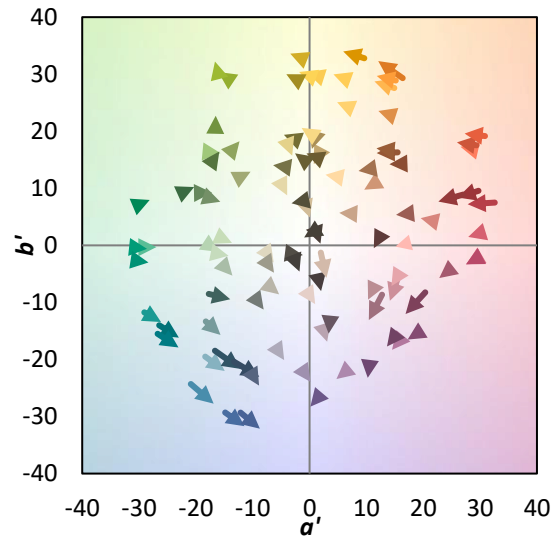
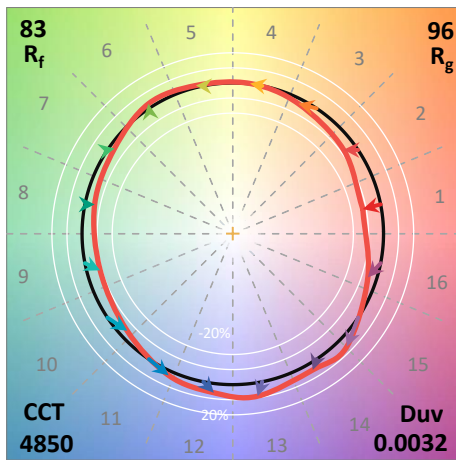
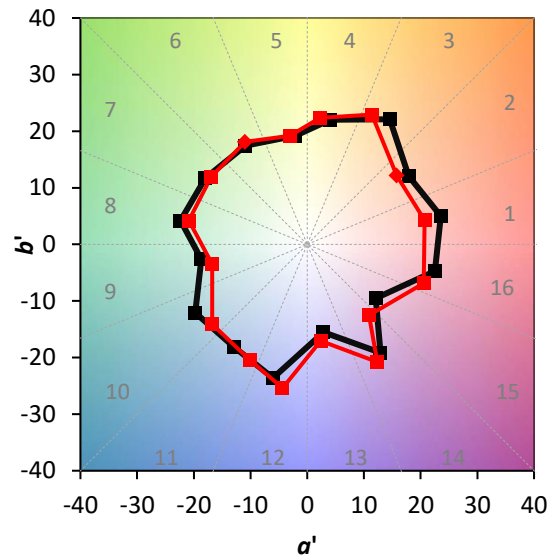
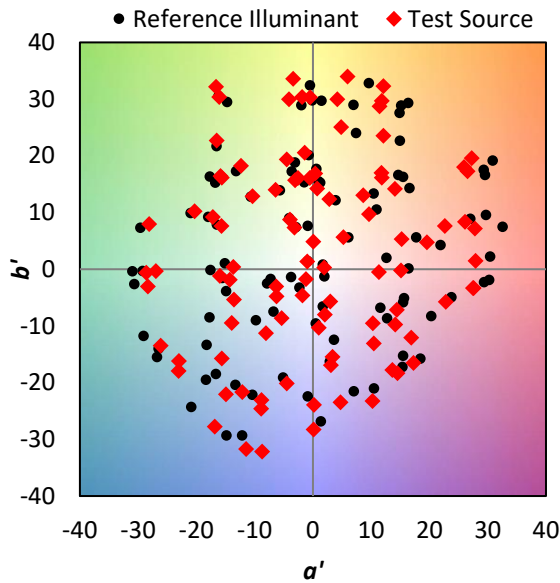
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

Summary

$R_f = 83.1$
 $R_g = 95.8$
 CIE $R_a = 82.6$
 $R_9 = 8.5$

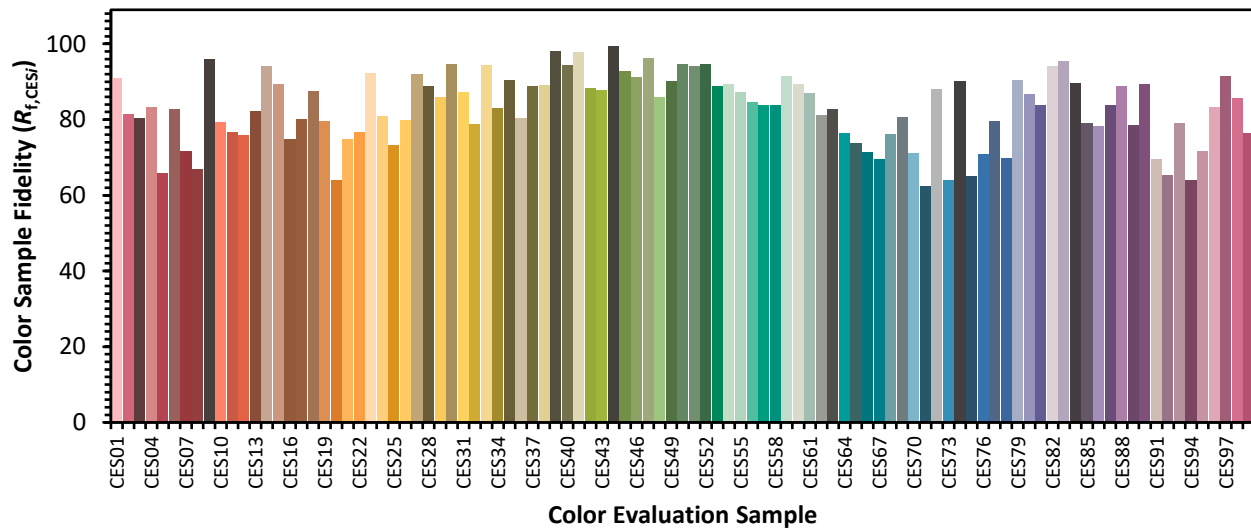


Color Vector Graphics

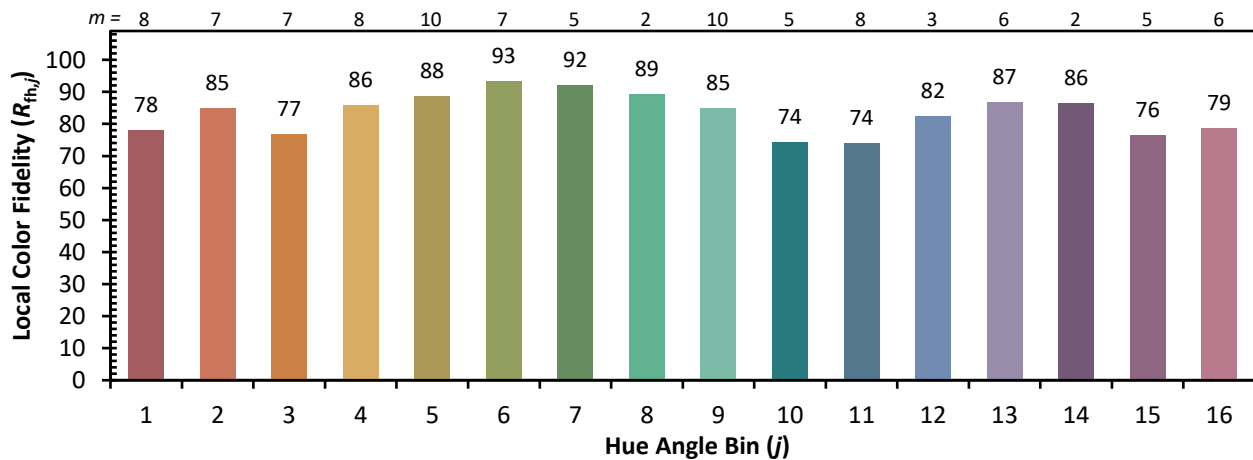
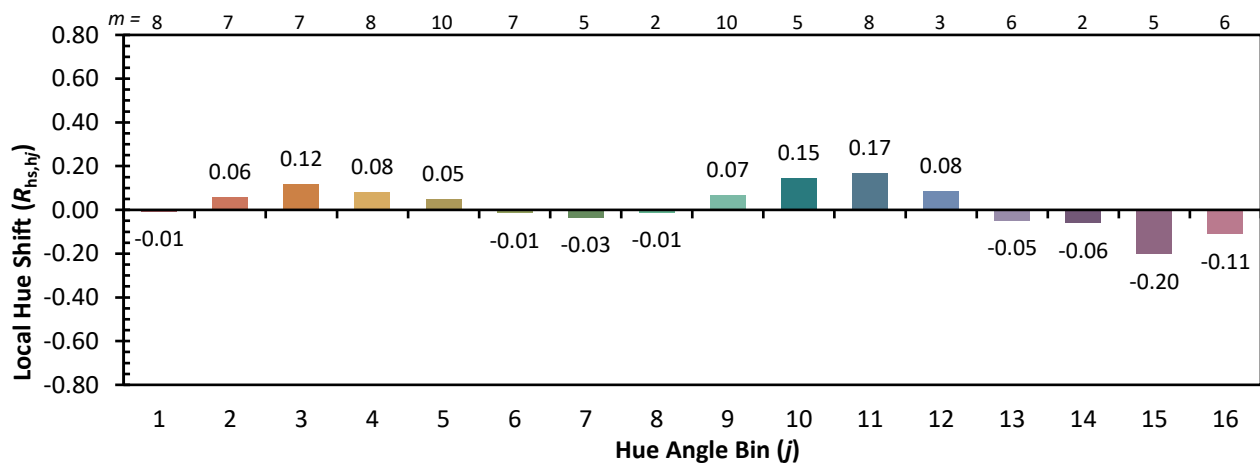
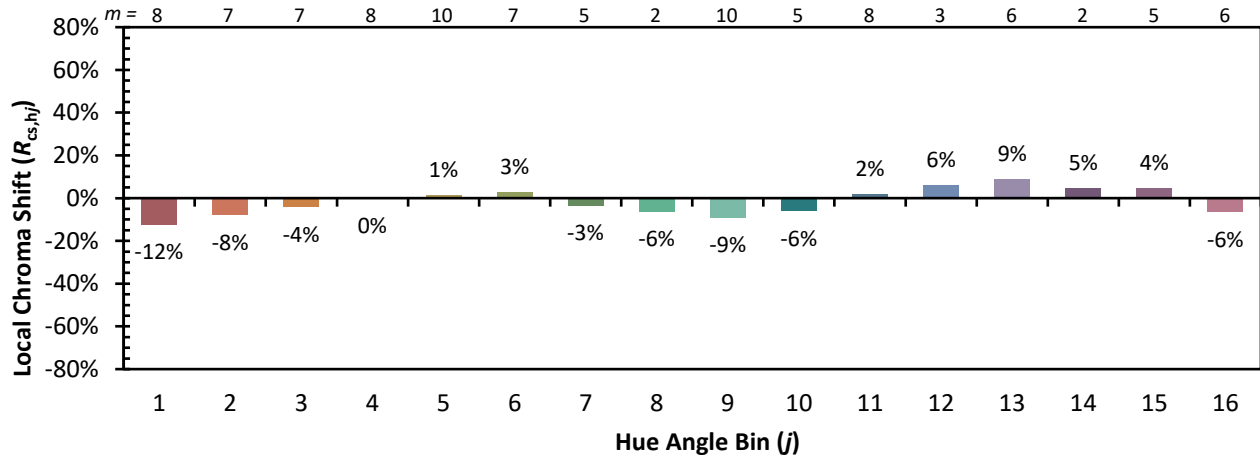


Individual Sample Fidelity Index ($R_{f,i}$)

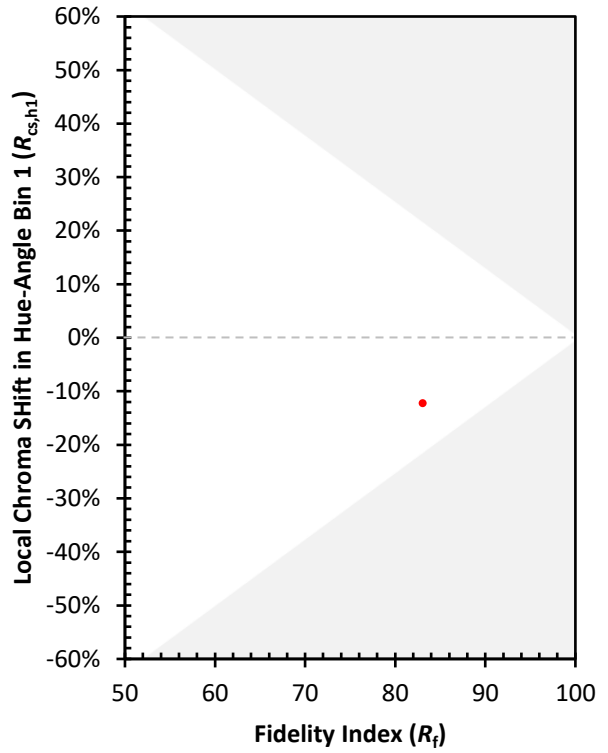
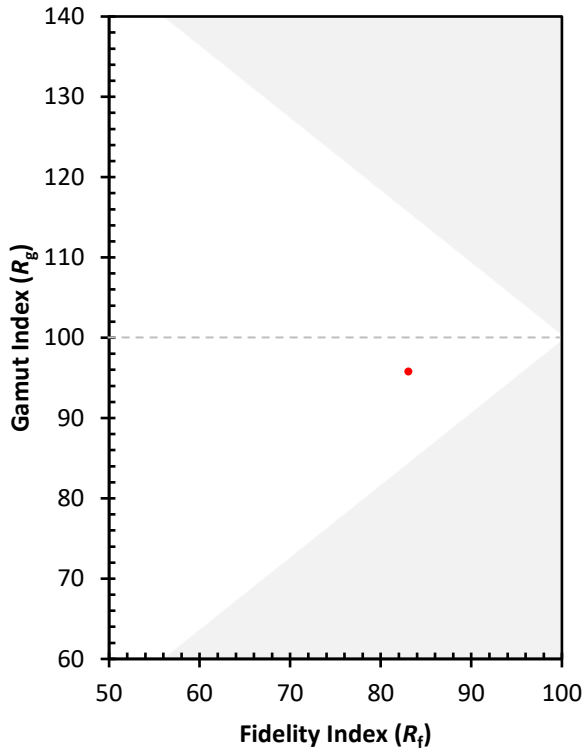
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 94
CES08 = 39	CES33 = 94	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 83	CES59 = 91	CES84 = 90
CES10 = 73	CES35 = 90	CES60 = 89	CES85 = 79
CES11 = 56	CES36 = 80	CES61 = 87	CES86 = 78
CES12 = 62	CES37 = 89	CES62 = 81	CES87 = 84
CES13 = 42	CES38 = 89	CES63 = 83	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 77	CES89 = 79
CES15 = 71	CES40 = 94	CES65 = 74	CES90 = 89
CES16 = 46	CES41 = 98	CES66 = 71	CES91 = 70
CES17 = 49	CES42 = 88	CES67 = 70	CES92 = 65
CES18 = 56	CES43 = 88	CES68 = 76	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 64
CES20 = 64	CES45 = 93	CES70 = 71	CES95 = 72
CES21 = 85	CES46 = 91	CES71 = 62	CES96 = 83
CES22 = 77	CES47 = 96	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 86	CES73 = 64	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 90	CES99 = 76
CES25 = 71	CES50 = 95	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)